

Notice of Allowability

Application No.

09/898,424

Examiner

C. SAYALA

Applicant(s)

YOUNG, DONALD C.

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 1/29/04.
2. ☒ The allowed claim(s) is/are 1-3,8,9,13-16,23-26,29-33,36-39,43 and 51-54.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 5.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 2/11/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.



CHHAYA SAYALA
PRIMARY EXAMINER

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/29/04 has been entered.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Rokos on 2/19/04.

The application has been amended as follows:

In the claims:

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Listing of Claims:

1. (currently amended) A concentrated nitrogen and phosphorus fertilizer composition comprising, in combination:

an ammonium phosphite composition having a pH in solution with water in the range of about 5 to 8, a weight percent of nitrogen in the range of about 6 to 12, and a weight percent of phosphorus in the range of about 32 to 36 weight percent, ~~said phosphorus comprising a phosphite ion in solution, the ammonium phosphite composition having a nitrogen:phosphorous molar ratio of between about 1:1 to about 2:1 and having a nitrogen-phosphorous-potassium composition of about 9.6-34-0.~~

2. (original) The fertilizer of claim 1 in combination with an ammonium phosphate compound comprising a source of phosphate ions in solution.

3. (previously presented) The fertilizer of claim 1 in combination with ammonium phosphate wherein the amount of phosphorus from the ammonium phosphate is substantially equal to the amount of phosphorus from the ammonium phosphite.

Claims 4-7 (canceled).

8. (currently amended) A nitrogen and phosphorus fertilizer composition comprising in combination a mixture of anhydrous ammonia, phosphorous acid and water adjusted to maintain pH in the range of about 5 to 8 where the composition has a nitrogen-phosphorous-potassium composition of about 9.6-34-0. ~~includes nitrogen in the range of about 6 to about 10 weight percent and phosphorus in the range of between about 22 to about 36 weight percent and the nitrogen:phosphorous molar ratio is between 1:1 and 2.4:1.~~

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9. (original) The composition of claim 8 adjusted to maintain pH in the range of about 5.5 to 6.5.

Claims 10-12 (canceled).

13. (currently amended) A method for fertilization of plant material comprising the step of applying a fertilizer compound as set forth in any of claims ~~1-4 and 8-9~~ 1-3, 8-9, 31-33, 36-39 and 51-53.

14. (currently amended) A method of manufacture of a fertilizer composition comprising the steps of:

mixing water, a source of nitrogen and phosphorous acid, and maintaining the temperature of the mixture at less than about 150°F and pH in the range of about 5 to 8 to provide a fertilizer having a concentration of ammonium phosphite as a source of phosphite ions, ~~the ammonium phosphite having a nitrogen:phosphorous molar ratio of between about 1:1 to about 2:1;~~

wherein the fertilizer composition includes ~~nitrogen in an amount between about 6 to about 10 weight percent and phosphorus in the form of P_2O_5 in an amount of between about 22 to about 36 weight percent~~ has a nitrogen-phosphorous-potassium composition of about 9.6-34.0.

15. (previously presented) The process of claim 14 wherein the nitrogen source is selected from the group consisting of ammonia, anhydrous ammonia, ammonium nitrate and combinations thereof.

16. (original) The process of claim 14 wherein the pH is in the range of about 5.5 to 6.5.

Claims 17-22 (canceled).

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23. (currently amended) The process of claim 14 wherein the phosphorous acid is polyphosphorous acid and the nitrogen-phosphorus-potassium composition of the fertilizer is 6.4-34-0.

24. (currently amended) The process of claim 14 further including mixing orthophosphoric acid and wherein the nitrogen-phosphorus-potassium composition of the fertilizer is 8.8-29-0.

25. (currently amended) A method of manufacture of a fertilizer composition having a nitrogen component and a phosphorus component ~~in the form of phosphite ions~~ comprising the steps of:

mixing water with ~~an acid taken from the group consisting of polyphosphorous acid, phosphorous acid, analogs, derivatives and mixtures thereof~~ and a nitrogen source at a temperature below about 150°F and at a pH of about 5-8 to provide a fertilizer having a concentration of phosphite ions,

~~wherein the fertilizer composition includes nitrogen in an amount between about 6 to about 10 weight percent and phosphorus in the form of P_2O_5 in an amount of between about 22 to about 36 weight percent and the nitrogen:phosphorous molar ratio is between 1:1 and 2.4:1 has a nitrogen-phosphorus-potassium composition of about 6.4-34-0.~~

26. (previously presented) The method of claim 25 wherein the nitrogen source is selected from the group consisting of ammonia, anhydrous ammonia, ammonium nitrate and combinations thereof.

Claims 27-28 (canceled)

29. (currently amended) A product made by the process of any of the claims 14-16, 23-26, 41-43 and 54 and 21-28.

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30. (currently amended) A method of use of the product of claims ~~1-4 and 8-9 or 29~~ 1-3, 8-9, 29, 31-33, 36-39 and 51-53 comprising the step of applying said product in liquid form to plants or soil as a fertilizer or fungicide, or both.

31. (currently amended) The fertilizer of claim 2 or claim 51 wherein the concentration of phosphite ions in the fertilizer is greater than the concentration of phosphate ions in the fertilizer.

32. (currently amended) The composition of claim 8 or claim 53 wherein the temperature of the composition is maintained below about 150°F.

33. (currently amended) The composition of claim 8 or claim 53 wherein the composition includes ammonium nitrate.

Claims 34-35. (canceled)

36. (currently amended) The composition of claim ~~[[34]] 53~~ wherein the composition includes a phosphite component and a phosphate component.

37. (previously presented) The composition of claim 36 wherein the phosphate component is selected from the group consisting of ammonium phosphate, ammonium orthophosphate, ammonium polyphosphate and mixtures thereof.

38. (previously presented) The composition of claim 36 wherein the phosphate component is present in the fertilizer in an amount no more than the amount of phosphite component.

39. (previously presented) The composition of claim 36 wherein the phosphate component is present in the fertilizer in an amount substantially equal to the amount of phosphate component.

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40. (canceled)

41. (previously presented) The method of claim 14 comprising mixing a phosphate component to provide a fertilizer composition having a combination of phosphite ions and phosphate ions.

42. (previously presented) The method of claim 41 wherein the amount of phosphite ions is greater than the amount of phosphate ions.

43. (previously presented) The method of claim 41 wherein the amount of phosphite ions is substantially equal to the amount of phosphate ions.

Claims 44-50 (canceled)

51. (new) A concentrated nitrogen and phosphorus fertilizer composition comprising, in combination:

an ammonium phosphite and ammonium phosphate composition having a pH in solution with water in the range of about 5 to 8 and having a nitrogen-phosphorous-potassium composition of about 9.8-34-0.

52. (new) The fertilizer composition of claim 51 wherein the amount of phosphorus from the ammonium phosphate is substantially equal to the amount of phosphorus from the ammonium phosphite.

53. (new) A nitrogen and phosphorus fertilizer composition comprising in combination a mixture of anhydrous ammonia, phosphorous acid, phosphate source and water adjusted to maintain pH in the range of about 5 to 8 where the composition has a nitrogen-phosphorous-potassium composition of about 9.8-34-0.

54. (new) The method of claim 41 wherein the fertilizer has a nitrogen-phosphorous-potassium composition of about 9.8-34-0.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The closest prior art reference, that of Hsu (US Patent 5865870), does not teach or fairly suggest an ammonium phosphite fertilizer composition of N-P-K value 9.6-34-0 which has a pH of about 5-8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA whose telephone number is 571-272-1405.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'C. Sayala', is positioned above the printed name.

C. SAYALA
Primary Examiner
Group 1700.